
GIARDIASIS

Clinical Features: The disease is often asymptomatic. When symptomatic, most common symptoms include chronic diarrhea, abdominal cramps, bloating, frequent loose and pale stools, malabsorption of fat and fat-soluble vitamins, fatigue, and weight loss. In severe giardiasis, damage to the duodenal and jejunal mucosal cells may occur.

Causative Agent: *Giardia lamblia*, a protozoan parasite

Mode of Transmission: Person-to-person transmission, especially in institutions and day care centers, is the principal mode of spread. Transmission is via the fecal-oral route, through ingestion of contaminated drinking water and recreational water, and less often from contaminated food. Humans are the principal reservoir of the infection. Dogs, cats, beavers, and other animals could be infected.

Incubation Period: Ranges from 3-25 days or longer (average of 7-10 days).

Period of Communicability: Entire period of infection. *Giardia* is often shed in the stool for months.

Public Health Significance: Disease may be prevented by promotion of good hand washing. Institutional outbreaks, especially in child day care centers, may result from person-to-person transmission - exclusion policies may apply to infected day care enrollees, foodworkers, and direct patient care providers.

Reportable Disease in Kansas Since: 1982

Laboratory Criteria for Surveillance Purposes

- Demonstration of *Giardia lamblia* cysts in stool, **OR**
- Demonstration of *Giardia lamblia* trophozoites in stool, duodenal fluid, or small bowel biopsy, **OR**
- Demonstration of *Giardia lamblia* antigen in stool by a specific immunodiagnostic test (e.g., enzyme-linked immunosorbent assay - ELISA).

Surveillance Case Definitions

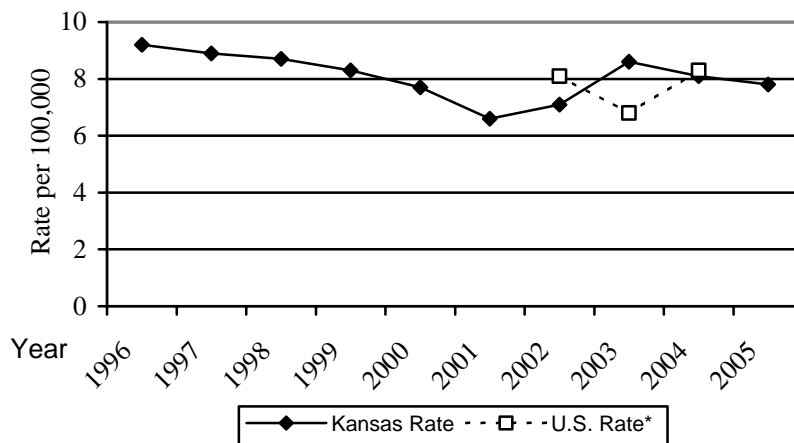
- *Confirmed:* a case that is laboratory confirmed.
- *Probable:* a clinically compatible case that is epidemiologically linked to a confirmed case.

Epidemiology and Trends

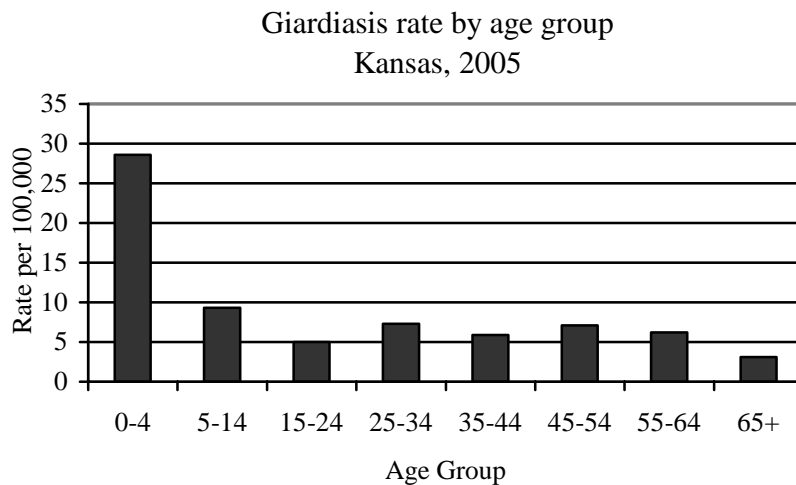
2005 Kansas Count: 214

	<i>Rate per 100,000</i>	<i>95% CI</i>
Kansas Rate	7.8	(6.8 – 8.9)
U.S. Rate (2004)	8.3	NA
<i>Gender</i>		
Male	9.1	(7.5 - 10.7)
Female	6.5	(5.2 - 7.9)
<i>Race</i>		
White	4.3	(3.4 - 5.1)
Black	12.1	(6.9 - 17.3)
Asian/Pacific Islander	16.0	(6.1 - 26.0)
<i>Ethnicity</i>		
Hispanic	3.2	(0.8 - 5.5)
Non-Hispanic	4.6	(3.8 - 5.5)
<i>Geographic area</i>		
Urban County	9.0	(7.4 - 10.6)
Non-Urban County	6.6	(5.2 - 8.0)

Giardiasis rate by year
1996 - 2005



*Not nationally notifiable until 2002



Reported cases of giardiasis decreased for the second consecutive year. In 2005, 214 cases (7.8 per 100,000 residents) were reported in Kansas, a decrease of seven cases from the previous year, when 221 cases (8.1 per 100,000 residents) were reported.

As in previous years, the incidence rate of disease in 2005 was higher among those residing in urban areas (9.0 per 100,000 residents) compared to non-urban areas (6.6 per 100,000 residents). Cases reported from the Kansas City area, among Douglas, Johnson, and Wyandotte county residents, accounted for 51% (n=110) of the state total. The reasons for this concentration are not clear; other urban counties in Kansas reported lower rates of giardiasis:

URBAN COUNTY	GIARDIASIS CASES	GIARDIASIS RATE
<i>Douglas</i>	<i>18</i>	<i>17.5</i>
<i>Johnson</i>	<i>61</i>	<i>12.3</i>
Sedgwick	10	2.2
Shawnee	5	2.9
<i>Wyandotte</i>	<i>31</i>	<i>19.8</i>

No giardiasis outbreaks were reported during 2005.